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| 10/724,919      | 12/01/2003  | Albert A. Andrews    | 2511.3008.002       | 1843             |

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EXAMINER

MUSSER, BARBARA J

ART UNIT PAPER NUMBER

1733

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/724,919

Applicant(s)

ANDREWS ET AL.

Examiner

Barbara J. Musser

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 9-12 and 16-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 23-30 is/are rejected.
- 7) ☒ Claim(s) 13-15 and 28-30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/1/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Claims 9-12 and 16-22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/31/06.
2. Applicant's election with traverse of the species election in the reply filed on 7/31/06 is acknowledged. The traversal is on the ground(s) that the species can be searched without burden to the examiner. This is not found persuasive because the species are mutually exclusive and are searched in different locations dependent on the method.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 3-8 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 3, it is unclear what is encompassed by "filament winding techniques". Winding does not impregnate resin. It is unclear if this means the fibers are impregnated in a method generally consistent with that used in filament winding or if the fibers are also wound around a mandrel as in

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filament winding as this winding can form sheets as required by the claim. For the purposes of examination, this is considered to require impregnating sets of elongated fibers so that a sheet of fibers is produced. Regarding claim 16, it is unclear what shapes are included in a "truss-like structure".

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,669,802. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the application encompass those of the patent.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugouchi(U.S. Patent 4,693,230).

Sugouchi discloses a method of making a composite riser for an archery bow wherein fiber reinforced preregs are wrapped around a foam core and inserted into a mold. This is then heated and cured under pressure.(Col. 2, ll. 26-40) The wrapping of the preregs around the core holds them in a set orientation even after the mold is closed, thus maintaining the fibers in a set orientation. A fiber reinforced prepreg has a fibers with resin between the fibers.

Regarding claim 23, Sugouchi discloses the prepreg can be made of rovings, which are elongate fibers.(Col. 2, ll. 32-33)

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. Claims 3-8, 13-15, and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugouchi in view of Avis et al.(U.S. Patent 3,737,352)

Sugouchi does not disclose how the prepreg sheets are made other than that the article contains layers of rovings of carbon or glass fiber.(Col. 2, ll. 32-35) Avis et al. discloses a method of making prepregs wherein rovings of carbon fiber are impregnated with resin, laid parallel to one another, and formed into a sheet with the use of a second resin.(Col. 1, ll. 68; Col. 2, ll. 35-45) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method of Avis et al. to make the rovings of Sugouchi into sheets since sheets would be easier to handle to wind about the core of Sugouchi and since Sugouchi suggests the use of prepregs, which are sheets.

Regarding claim 4, since the sheets are wound around the core, they would not move when the mold is closed.

Regarding claims 6 and 25, while Sugouchi does not disclose the temperature and pressure used, the temperature and pressure used are dependent on the resin used and are within the skill of one in the art. Only the expected results would be achieved.

Regarding claims 7 and 26, since the sheets are wound around the core, one in the art would expect they would not all point in the same direction. Additionally, it is well known and conventional in the prepreg arts to arrange the layers with the fibers of different layers at different directions to improve the strength of the laminate.

Regarding claims 8 and 27, while Sugouchi does not explicitly disclose rolling the fiber sheets into an elongate cylinder, the sheets are wrapped around a core such that a flattened cylinder is formed(Figure 4) particularly since Sugouchi discloses an air bag can be used as a core(Col. 2, ll. 47) and the normal cross-section of a bag of gas is circular, i.e. forming a circular cross-section for an elongated article such that a cylindrical shape is formed.

#### ***Allowable Subject Matter***

11. Claims 13-15 and 27-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
12. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach or fairly suggest the location of the ends of the cylinder of fibers.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (571) 272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
BJM

  
RICHARD CRISPINO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER